SUMMARY OF CHANGES

On page 1, on the first line after the title, insert --This patent application is a Division of prior, co-pending U.S. Patent Application Serial No.: 09/113,981, filed July 28, 1998--.

On page 2, line 13, after "structures" and before "Complimentary", insert --are--.

On page 7, line 3, after "5,346,627," and before "a", delete "discloses" and insert therefor --disclose--.

On page 8, line 22, after "Example 3" and before "a", delete "passes" and insert therefor --pass--.

On page 9, line 3, after "3,914,374," and before "a", delete "discloses" and insert therefor --disclose--.

On page 13, line 13, after "peroxide" and before "catalytically" delete "(H_2O_2)" and insert therefor --(H_2O_2)--.

On page 14, line 11, after "and" and before "for" insert --process--.

On page 15, line 11, after "at" and before "concentration" delete "a".

On page 15, line 12, after "(500-2000 ppm)" and before the end of the line, insert a period.

On page 19, line 25, at the beginning of the line and before "characteristics" delete "as- received" and insert therefor --as-received--.

REPLACEMENT PARAGRAPHS

In accordance with 37 CFR §1.121(b), delete the indicated paragraphs identified by location as follows and replace the deleted paragraph with the indicated replacement paragraph provided as follows in clean form, i.e., without markings to indicate the changes that have been made.

On page 1, on the first line after the title, add the following new paragraph:

B1 This patent application is a Division of prior, co-pending U.S. Patent Application Serial No.: 09/113,981, filed July 28, 1998.

At page 2, 2nd full paragraph:

B2 ULSI silicon structures are Ultra Large Scale Integration integrated circuits containing more than 50,000 gates and more than 256K memory bits. CMOS silicon structures are Complimentary Metal Oxide Semiconductor integrated circuits containing N-MOS and P-MOS transistors on the same substrate.

At page 7, 2nd full paragraph:

Siefert et al., U.S. Patent No. 5,346,627, disclose a method for removing metals from a fluid stream with a water soluble ethylene dichloride ammonia polymer that contains dithiocarbamate salt groups to form complexes with the metals.

At page 8, 3rd full paragraph:

Asano et al., U.S. Patent 3,923,741, in Example 3 pass a copper solution through a granular active carbon column. Flow resistance is measured and reported. The solution then is passed through an ion exchange resin column. (U.S. 3,923,741, Col. 6, lines 35-65.)

At page 9, 1st full paragraph:

Koehler et al., U.S. Patent 3,914,374, disclose removing residual copper from acid nickel solutions by activated carbon which absorbs the copper.

At page 13, 2nd full paragraph:

The process and apparatus of the present invention provide for a removal of metal ions through a combination of steps including passing a wastewater solution containing metal ions first through a carbon adsorption column, preferably without prior micro-filtration or ultra-filtration removal of suspended solids, to remove hydrogen peroxide (H_2O_2) catalytically and then

reacting the wastewater solution containing metal ions with an organic precipitating solution to remove the metal ions from solution.

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At page 14, 2nd full paragraph:

In one aspect, the process and apparatus of the present invention provide a novel apparatus and process for the removal of copper ions including passing a wastewater solution containing copper ions first through a carbon adsorption column, preferably without prior micro-filtration/removal of silica, alumina slurry solids, to remove catalytically the hydrogen peroxide (H_2O_2) and then reacting the wastewater solution containing copper ions with an inorganic ferrous sulfate or aluminum sulfate to precipitate the copper.

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At page 14, 4th full paragraph:

Referring now to the Figure, a process schematic diagram shows the metal ion removal process and apparatus of the present invention. A chemical mechanical polishing (CMP) planarization tool 10, e.g., such as in an integrated circuit microchip fabrication facility, discharges a wastewater stream 20 containing metal ions in solution, e.g., such as copper ions in solution. The wastewater stream 20 containing copper ions also contains hydrogen peroxide at levels up to about 300 ppm and higher. The

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hydrogen peroxide is used as an oxidizer to help dissolve the copper from the microchip. The wastewater stream 20 containing copper ions and hydrogen peroxide also contains suspended solids, e.g., such as silica, alumina slurry solids, at nominal particle diameter sizes of about 0.01-1.0 μm and at concentration levels above about 50 mg/l (50 ppm), e.g, such as by way of example, in the range of about 500-2000 mg/l (500-2000 ppm)

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above about 50 mg/l (50 ppm), e.g, such as by way of example, in the range of about 500-2000 mg/l (500-2000 ppm).

At page 19, 3rd full paragraph:

Three samples were put through the carbon column, "A," "B," and "C," representing different manufacturing companies and separate facilities. One of the samples used during this test was "A" slurry previously concentrated using a Membralox Silver-back® microfilter purification system available commercially from U.S. Filter Wastewater Systems, Inc. in Warrendale, Pennsylvania. The concentrate was re-diluted with deionized water to simulate "as-received" characteristics.

IN THE CLAIMS:

Please amend the Claims as follows.

Please cancel Claims 1-11 and 20 without prejudice.

REMARKS

Claims 12 19 are in the case.

Attached hereto is a marked-up version of the changes made to the Claims by the current Amendment. The attached pages are captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."